Docket No. 500.42907PX1 Appln. No. 10/717,646 July 14, 2008

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

- 1. and 2. (Cancelled).
- 3. (Currently amended) A lithium secondary battery having a positive electrode and a negative electrode which reversibly intercalate and deintercalate lithium, the negative electrode containing amorphous carbon, and an electrolyte containing an ion conductive material and an electrolytic salt, where the ion conductive material comprises a polymerizable composition which contains a boron-containing compound represented by the following formula (2) and a boron-containing compound represented by the following formula (3):

$$Z_4$$
 — (AO)_p — O — B O — (AO)_q — Z_5 ... (2)

$$R_1 - (AO)_{\alpha} - O - B = O - (AO)_{\beta} - R_2 \cdots (AO)_{\gamma} - R_3 \cdots (AO)_{\gamma}$$

wherein B represents a boron atom; Z_4 , Z_5 and Z_6 each represent an organic group having an acryloyl group or a methacryloyl group or a hydrocarbon group of 1-10 carbon atoms, with the proviso that at least one of Z_4 , Z_5 and Z_6 is said organic group having an acryloyl group or a methacryloyl group; R_1 , R_2 and R_3 each represent a hydrocarbon group of 1-10 carbon atoms; AO represents an oxyalkylene group of 1-6 carbon atoms and comprises one or two or more of the oxyalkylene groups; and each of p, q, r, α , β and γ each represent an average degree of polymerization of the

Docket No. 500.42907PX1

Appln. No. 10/717,646

July 14, 2008

oxyalkylene group and is more than 0 and less than 4, provided that each of the sum

p+q+r and the sum $\alpha+\beta+\gamma$ is 1 or more.

4. (Previously presented) A lithium secondary battery according to claim 3, wherein

the molar ratio of the compound of the formula (2) and the compound of the formula

(3) [(molar number of the compound of the formula (3))/(molar number of the

compound of the formula (2))] is 0.1 to 9.

5. (Original) A lithium secondary battery according to claim 3, wherein the

electrolyte contains a polymer obtained by polymerizing the polymerizable

composition.

6. (Original) A lithium secondary battery according to claim 4, wherein the

electrolyte contains a polymer obtained by polymerizing the polymerizable

composition.

7. and 8. (Cancelled).

9. (Original) A lithium secondary battery according to claim 3, wherein the

electrolytic salt is at least one of LiPF₆, LiN(CF₃ SO₂)₂, LiClO₄, LiBF₄, LiAsF₆, LiI,

LiBr, LiSCN, Li₂B₁₀Cl₁₀ and LiCF₃CO₂.

10. (Original) A lithium secondary battery according to claim 4, wherein the

electrolytic salt is at least one of LiPF₆, LiN(CF₃SO₂)₂, LiClO₄, LiBF₄, LiAsF₆, LiI,

LiBr, LiSCN, Li₂B₁₀Cl₁₀ and LiCF₃CO₂.

3

Docket No. 500.42907PX1 Appln. No. 10/717,646

July 14, 2008

11.-14. (Cancelled).

15. (Previously presented) A lithium secondary battery according to claim 3, wherein each of the compounds represented by the formula (2) and by the formula (3) has a molecular weight of 300-1000.

16. (Previously presented) A lithium secondary battery according to claim 3, wherein each of the compounds represented by the formula (2) and by the formula (3) has a molecular weight of 500-800.

17. (Currently amended) A lithium secondary battery according to claim 3, wherein the number of carbon atoms in AOA9 is 1-4.

18. (Previously presented) A lithium secondary battery according to claim 3, wherein all of Z_4 , Z_5 and Z_6 are organic groups having an acryloyl group or a methacryloyl group.

19. (Previously presented) A lithium secondary battery according to claim 3, wherein p, q, r, α , β and γ are 1-3; and p+q+r and α + β + γ are 3-9.

20. (Previously presented) A lithium secondary battery according to claim 4, wherein said molar ratio is 0.5 to 4.

21. (Previously presented) A lithium secondary battery according to claim 20, wherein said molar ratio is 1-2.5.

Docket No. 500.42907PX1

Appln. No. 10/717,646

July 14, 2008

22. (New) A lithium secondary battery according to claim 3, wherein said

polymerizable composition consists essentially of said boron-containing compound

represented by the formula (2) and said boron-containing compound represented by

the formula (3).

23. (New) A lithium secondary battery according to claim 3, wherein said

polymerizable composition consists of said boron-containing compound represented

by the formula (2) and said boron-containing compound represented by the formula

(3).